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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,360	07/23/2003	Eugene A. Roylance	200309697-1	1222
22879	7590	08/09/2007		EXAMINER
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				HUFFMAN, JULIAN D
			ART UNIT	PAPER NUMBER
			2853	
				MAIL DATE
				DELIVERY MODE
				08/09/2007
				PAPER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/626,360
Filing Date: July 23, 2003
Appellant(s): ROYLANCE ET AL.

MAILED
AUG 09 2007
GROUP 2600

Jack H. McKinney
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 15 May 2007 appealing from the Office action mailed 24 January 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is incorrect. The changes are as follows: While appellant states that claims 1-4 and 6-8 stand rejected under 35 U.S.C. 102(e) as being anticipated by USPN 5,930,553 issued to Hirst et al., claims 1, 4 and 6-8 are rejected under 35 U.S.C. 102(b).

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,930,553	Hirst et al.	7-1999
5,754,309	Chen et al.	5-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

(9)1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(9)2. Claims 1, 4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirst et al. (U.S. 5,930,553).

Hirst et al. discloses:

With regards to claims 1 and 6, a removable cartridge (figs. 1 and 2, element 18) for an image forming device, comprising:

a printing component that can be utilized by the image forming device to assist in producing a printed image (toner, column 1, lines 49-56); and

a memory (19) programmed with:

a plurality of image enhancement data sets including at least one image enhancement data set selected from a group of image enhancement data sets comprising an edge smoothing image enhancement data set, a halftone image enhancement data set, and an imaging material conserving image enhancement data set (column 2, lines 46-51 and column 5, lines 19-24);

data set selection criteria for use in selecting from among the plurality of image enhancement data sets (19a, column 3, lines 34-54);

wherein at least one image enhancement data set defines at least one condition selected from a group of conditions comprising a first condition associated with the edge smoothing image enhancement data set for use when printing text or line art, a second condition associated with the halftone image enhancement data set for use when printing a halftone image, and a third condition associated with the imaging material conserving image enhancement data set for use when printing a solid area of an image (column 2, lines 46-48 and column 5, lines 19-24).

With regards to claim 7, a reservoir for holding imaging material (toner, column 1, lines 49-56), and wherein the printing component can be utilized by the image forming device to assist in producing a printed image using imaging material from the reservoir.

With regards to claims 4 and 8, the memory is formatted to store a state variable reflecting a state of the printing component (version number, manufacturing date and/or code patch, column 3, lines 34-54), and wherein the data set selection criteria represents electronic data that can be processed with the state variable to select from among the image enhancement data sets (the state variable is used to determine if an

upgrade is to be performed, and if so, image enhancement data sets are selected in the form of color tables to update the information in the image forming device main body).

(10) Response to Argument

Ground For Rejection A – Claims 1-4 [1, 4] and 6-8 stand rejected under 35 U.S.C 102(e) as being anticipated by USPN 5,930,553 issued to Hirst.

Appellant argues that “the examiner mistakenly equates the image enhancement data sets recited in Claim 1 with Hirst’s color look-up table and “software or firmware updates”.

Appellant states that “Hirst’s *color look-up table* controls generation of specific *color shades* (emphasis added)... it is not an edge smoothing image enhancement data set, a halftone image enhancement data set, or an imaging material conserving image enhancement data set”.

Appellant argues that “the color look-up table does not define a condition associated with the edge smoothing image enhancement data set for use when printing text or line art, a condition associated with the halftone image enhancement data set for use when printing a halftone image, or a condition associated with the imaging material conserving image enhancement data set for use when printing a solid area of an image”.

Appellant argues that "Hirst mentions nothing of the contents or purpose of any other type of look-up table or any other information that may be included in a software patch".

Appellant states that "The examiner has not provided evidence that image enhancement data set as specifically recited in Claim 1 are inherently part of a look-up table or a software patch".

Contrary to this statement, the examiner never stated that the image enhancement data set claimed is inherently part of the look-up table or software patch. The examiner is not relying on inherency since the color look up table disclosed by Hirst et al. meets the claims directly. Specifically, Hirst's color look up table meets Appellant's broad recitation of an enhancement data set.

The relevant portions of Hirst et al. that discuss the color look-up table are reproduced below for convenience.

Column 2, lines 47-52 of Hirst et al. recite:

A specific example, is an update to the color lookup tables which control generation of specific color shades. As toner formulations are optimized it is sometimes necessary to alter some or all of the electrographic printing parameters to take advantage of the new toner formulation. Until now, there has been no convenient way to do this to an image forming device already in service.

Column 1, lines 8-13 of Hirst state:

"This invention generally relates to image forming and office automation devices and more particularly to a consumable for use in these devices which includes a memory for storing information about installation and exhaustion dates and consumable consumption and for updating programming within the devices."

Column 5, lines 19-34 recite:

Memory segment 19e provides storage space for software and/or firmware patches to update the software in the image forming device and may include new lookup tables such as the color lookup tables. This feature forms the basis for the second embodiment of the invention. In most image forming devices there are a number of microcomputers 30 each controlling a different function with the image forming device. For example, there may be a separate microcomputer in the user display to gather data from the user and present visual display of important data to the user; a separate microcomputer in the print engine to control the xerographic image development process; a separate microcomputer which takes a desired printed page and rasterizes the image for transfer to the imaging device within the print engine.

In the printing art color is directly related to density and density is related to the amount of imaging material deposited on the substrate (paper or the like). In electrophotographic printers (also referred to as xerographic or laser printers), shades of color or density are/is controlled by adjusting the amount of toner deposited.

By upgrading the color look-up tables that control the shades of color printed, Hirst et al. changes the density of the color on the page by controlling the amount of toner deposited. Controlling the amount of toner deposited is equivalent to "an imaging material conserving image enhancement data set". When the color table is upgraded in Hirst et al., the amount of toner deposited for each color is changed and the color table represents an imaging material conserving image enhancement data set.

It is noted that, via the language "at least one image enhancement data set selected from", only one of the cited image enhancement data sets need be taught in the prior art to meet the claim limitation. Thus, while Hirst et al. may not disclose the edge smoothing image enhancement data set and halftone image enhancement data set, Hirst et al. anticipates the claimed invention by disclosing the imaging material conserving image enhancement data set by way of the color table.

Nevertheless, considering the halftone image enhancement data set, Hirst et al. also discloses this feature.

Certain portions of Hirst et al. are reproduced below to emphasize the teaching of the halftone image enhancement data set.

Column 1, line 56-column 2, line 8 recites:

Additionally, it is oftentimes desirable to provide updates to the programming of office automation and image forming devices to provide additional features, adjust operating parameters and fix software bugs. For instance, in one color laser printer currently on the market there are at least four separate microcomputers within the device. There is one microcomputer in the user display to gather data from the user and present visual display of important data to the user, *there is a microcomputer in the print engine to control the xerographic image development process, there is a microcomputer which takes a desired printed page and rasterizes the image for transfer to the laser imaging device within the print engine*, and finally there is another microcomputer to control access to and data interchange with a local area network or LAN. Likewise, with other image forming devices and office automation devices it may prove necessary to update the computer software/firmware for any of the microcomputers that reside within the office automation equipment.

Electrophotographic printers have halftone image processors. Otherwise the correct shades of color cannot be reproduced. For support, see for example U.S. 5,754,309 to Chen et al., fig. 1, which depicts "the major subsystems of a laser printer" 10 (column 4, lines 8-9) that includes a "halftone processor" 24 (column 4, line 33).

Thus, since Hirst et al. upgrades the microprocessor(s) in laser printers that develop(s) the image and rasterize(s) it, and all laser printers have halftone processors, Hirst et al. therefore discloses storing a halftone image enhancement data set in the memory.

Finally, it is noted that the general teachings of Hirst et al. amount to teaching that any processing instructions executed by any processor in a printer can have an upgraded version stored in the memory. This basic teaching encompasses all of the image enhancement data sets claimed by appellant since any and all versions of operating software in the microprocessor of the image forming device are capable of being updated, not merely the color tables.

Claim 6 is anticipated by Hirst et al. for the same reasons discussed above concerning claim 1. Claims 1 and 6 are not argued separately.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Julian D. Huffman
Primary Examiner
Art Unit 2853
1 August 2007

Conferees:



David Blum

Stephen Meier

